



DEPARTMENT OF THE NAVY  
OFFICE OF THE CHIEF OF NAVAL OPERATIONS  
WASHINGTON, DC 20350-2000

IN REPLY REFER TO  
OPNAVINST 1542.7A  
N889F3  
01 March 1995

OPNAV INSTRUCTION 1542.7A

From: Chief of Naval Operations

Subj: AIRCREW COORDINATION TRAINING PROGRAM

Ref: (a) OPNAVINST 3710.7P  
(b) MCO P3500.14

1. Purpose. To establish policies, responsibilities and procedures for the Aircrew Coordination Training (ACT) program. This instruction is a complete revision and should be reviewed in its entirety.

2. Cancellation. OPNAVINST 1542.7.

3. Background. ACT is intended to improve the mission effectiveness of all aviation communities by enhancing crew coordination through increased awareness of associated behavioral skills. ACT was introduced into Naval Aviation in the late 1980's in the form of a commercially procured program. Since fleet introduction, several communities modified the commercial program to become more platform specific and some developed an entirely different program. The Navy pursued a Research and Development (R and D) effort that identified seven common behavioral skills that were related to aviation mishaps. In 1993 the Navy implemented an interim ACT program designed to address these seven skills on a limited level and improve standardization. This instruction establishes the integrated ACT program. The goal of ACT is to integrate the instruction of specifically defined behavioral skills throughout Navy/Marine Corps aviation training. Standardized training strategies shall be used in such areas as academics, simulators and flight training. Practicing ACT principles will improve mission effectiveness and reduce mishaps that result from poor crew coordination.

4. Scope. The provisions of this instruction are applicable to all Naval Aviation communities. All personnel whose primary duties involve flying as a crew member in naval aircraft shall receive ACT in accordance with the policies of this instruction



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and the appropriate provisions of references (a) and (b). ACT will be an integral part of every flight operation and it will be the responsibility of all aircrew members to evaluate ways in which ACT can be incorporated into their flight operations.

Due to the unique nature of the Navy Flight Demonstration Squadron and their routine training in team coordination, they are exempt from the requirements set forth in this instruction.

5. Definitions

a. Naval Aircraft. Any aircraft assigned to a U.S. Navy (USN), U.S. Naval Reserve (USNR), U. S. Marine Corps (USMC), or a U.S. Marine Corps Reserve (USMCR) unit.

b. Aircrew member. All aeronautically-designated personnel qualified to serve as a crewmember in a naval aircraft.

c. Type Commanders (TYCOMs). Commander, Naval Air Forces Atlantic/Pacific Fleet; Commander Marine Forces Atlantic/Pacific; Chief of Naval Air Training; Commander, Naval Air Reserve Force; Commander, Naval Air Systems Command; Commanding General, 4th Marine Aircraft Wing.

d. Type Wings. For active duty Navy (USN), the Type Wing is the wing associated with a particular aircraft type on each coast (i.e. Helicopter Antisubmarine Wing LANT). For USMC or USMCR units, the type wing is the Marine Aircraft Wing. In the USNR, type wings are Commander, Reserve Patrol Wings Pacific/Atlantic; Commander, Helicopter Wing Reserve; Fleet Logistics Support Wing and Carrier Air Wing Reserve TWENTY.

e. ACT Instructional Model Manager. Naval Aviation Schools Command is designated as the Navy/Marine Corps ACT Instructional Model Manager.

f. ACT Curriculum Model Manager. Specific ACT curriculum model managers, for each T/M/S aircraft, are contained in paragraph 7g.

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g. ACT Instructor. An instructor at a Fleet Readiness Squadron (FRS), Type Wing, Marine Aircraft Group (MAG), Reserve ASW Training Center or in the Undergraduate Aircrew Training (UAT) program who is certified and designated, by the commanding officer, to teach principles of ACT and methods of instruction and evaluation to ACT facilitators. ACT instructors shall be experienced officer or enlisted aircrewmembers who are familiar with the ACT program and must have successfully completed the ACT instructor course provided by the ACT Instructional Model Manager.

h. ACT Facilitator. An individual designated by the unit commanding officer to conduct ACT refresher training in an aviation unit. A facilitator shall be positionally qualified (ie. aircraft commander, flight leader, etc.) and a graduate of the ACT facilitator course provided by an ACT instructor for the applicable T/M/S aircraft.

i. ACT Integrated Syllabus. A syllabus in which the identified ACT behavioral skills are integrated into academic, simulator and flight syllabi. It identifies and recommends crewmembers responsible for specific procedural tasks and recommends behaviors/procedures for effective and safe accomplishment of the mission/task.

Note: Once an integrated syllabus is approved, it shall be used for ACT instruction and the former FAM/Interim ACT course may no longer be used.

j. ACT Training Strategies. The training strategies identified for aircrew coordination behavioral skills are: information, demonstration, practice and feedback. Information is used to provide knowledge surrounding definitions and application of aircrew coordination behavioral skills during flight operations. Examples of information materials include classroom lectures, case study seminars and videotaped aircrew experiences. Demonstration is used to provide aircrew with examples of how aircrew coordination behavioral skills are applied to flight operations. Examples of demonstration materials include videotaped aircrew experiences, role play exercises and scripted simulator and flight events. Practice is used to provide aircrew with opportunities to use aircrew coordination behavioral skills in relevant flight settings. Practice materials include scripted simulator and flight events designed to allow the use of aircrew coordination skills. Feedback is the use of observation and evaluation techniques to provide a relevant review of the event to the crewmember on

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individual proficiency at specific behavioral skills. Observation, evaluation and feedback materials include simulator and flight event grade sheets containing specific coordination skills with specific evaluation criteria.

6. Policy. Formal ACT shall be conducted as outlined below:

a. Initial training. Initial training shall occur at the beginning of each tour of duty involving flying. This training shall be conducted using Chief of Naval Operations (CNO) or Commandant of the Marine Corps (CMC)-approved course materials at the Naval Aviation Training Command (NATRACOM), Fleet Replacement Squadron (FRS) as a segment of the approved training pipeline or during an approved course of instruction outlined in paragraph 6g.

b. Refresher training. Annual ACT academic refresher training shall be conducted by an ACT instructor or by an ACT facilitator using type-wing approved course materials. Once initially qualified, aircrew members will receive refresher training through the ACT program in their assigned unit on an annual basis. The expiration date for ACT annual training/qualification will be the last day of the month the training was completed plus 1 year.

c. Course content. At a minimum, all ACT courses in Naval Aviation shall instruct the behavioral skills developed through the Navy R and D effort. These skills are as follows:

- (1) Decision Making (DM)
- (2) Assertiveness (AS)
- (3) Mission Analysis (MA)
- (4) Communication (CM)
- (5) Leadership (LD)
- (6) Adaptability/Flexibility (A/F)
- (7) Situational Awareness (SA)

The instructional methodology should include a combination of classroom instruction, practice and feedback of skill knowledge through the use of simulators and in-flight observation. The course of instruction shall be platform/mission specific through

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the use of examples and scenarios used to reinforce the behavioral skill awareness.

Personnel who perform duties as a crewmember in more than one Type/Model/Series (T/M/S) aircraft shall receive initial and refresher ACT in at least one of the T/M/S in which crewmember duties are performed. This does not preclude formal instruction in more than one T/M/S.

d. ACT Instructor training. ACT instructor training shall be provided by the ACT Instructional Model Manager. The course of instruction will include principles of ACT and methods of instruction and evaluation for use by ACT instructors in the training of squadron ACT facilitators.

e. ACT Facilitator training. ACT facilitator training shall be provided by the appropriate type wing or designated subordinate command. The course of instruction shall be T/M/S specific and include principles of ACT and methods of instruction and evaluation for use by ACT Facilitators in the training of aviation unit personnel.

f. Documentation requirements. Initial and refresher training shall be logged in the individual Naval Air Training and Operating Procedures Standardization (NATOPS) Flight Personnel Training/Qualification Jacket (OPNAV 3760/32) in Section III, Part A on form OPNAV 3760/32E. Initial and refresher training shall be logged as shown in the following example:

SCHOOL/COURSE	DATES ATTENDED	PASS/FAIL	UNIT	REMARKS
SH-60F Initial ACT	6-8 Apr 92	Pass	HS-10	Expires (Date)
SH-60F Refresher ACT	10 Mar 93	Pass	HS-2	Expires (Date)

g. Extension to expiration date. The expiration date for ACT refresher training may be extended under the following conditions:

(1) Unit commanders may grant written extension to the expiration date of ACT training for aircrew that would otherwise expire during the period of an extended deployment. Extensions shall not exceed 90 days after return from deployment.

(2) TYCOMs may grant written extension of ACT training requirements in those cases which so merit because of unusual

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circumstances. In each case, extension authorization shall be filed in the individuals NATOPS flight personnel training/qualification jacket.

h. Failure to meet ACT requirements. Failure to meet ACT training requirements, without a written extension, will result in the aircrewman being unable to fill a crew position that requires a NATOPS-qualified crewmember. Once ACT training requirements are met, or an extension is approved, the aircrewman may assume the duties of a qualified crewmember.

i. Recognition of other ACT courses. Several aviation communities have established ACT courses which are approved by the TYCOMs. Documented attendance in one of these courses during an individual's current tour of duty is recognized as meeting the requirements for initial ACT training. Completion of this course of instruction must be logged in the NATOPS Jacket as indicated in paragraph 6f. If an individual has not attended one of the ACT courses listed below during the current tour of duty, that individual shall attend the appropriate course to receive initial ACT training.

(1) CAE-LINK Corporation developed courses

(2) Patrol Community (VP) developed courses

(3) Flight Safety/Simu-Flite (specifically for C-130, CT-39, C-20, C-9 and C-12 operations.)

(4) Naval Air Warfare Center, Training Systems Division {formerly Naval Training Systems Center (NTSC)} -developed courses.

(5) Previously approved Interim ACT courses.

Note: Successful completion of aircraft refresher training at Flight Safety/Simu-Flight fulfills the requirements for annual ACT refresher training.

7. Responsibilities. The following responsibilities are general in nature. Specific guidance and standard operating procedures should be developed at each level to ensure proper implementation of this program.

a. Chief of Naval Operations (N889). Serve as approving authority for all USN FRS and NATRACOM Initial Integrated ACT course materials.

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b. Commandant of the Marine Corps (CG, MCCDC Code C46).  
Serve as USMC coordinator for implementation of ACT programs and approving authority for USMC Integrated ACT course materials.

c. Commander, Naval Air Systems Command (COMNAVAIRSYSCOM, PMA-205). Serve as ACT program manager.

d. Naval Safety Center. Coordinate, with the ACT Instructional Model Manager, the dissemination of aviation mishap and hazard report data where aircrew coordination may have been a contributing factor in causing or averting the mishap or hazard.

e. TYCOMS

(1) Ensure ACT program is maintained in accordance with applicable instructions throughout the fleet.

(2) Monitor the implementation and effectiveness of the ACT program in each platform.

(3) Commander, Naval Air Reserve Force shall have ACT instructors on each type wing staff and/or coordinate with the aircraft FRS or Reserve ASW Training Center to provide qualified ACT instructors.

(4) Request an initial standardization assistance visit, from the ACT Instructional Model Manager, between 18 and 24 months following initial integrated ACT program implementation for each T/M/S. Subsequent assistance visits shall be accomplished at intervals not to exceed 24 months.

f. Type Wings

(1) Shall approve the training program used for the conduct of annual ACT refresher training in their respective units.

(2) Shall ensure that all aviation units under their cognizance receive annual ACT.

(3) Shall ensure that ACT refresher training courses are reviewed annually and updated, if necessary to reflect current missions and aircraft configuration.

(4) Provide ACT Facilitator training to all contract simulator instructors.

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(5) Maintain, as a minimum, the prescribed number of designated ACT instructors within their command or subordinate commands to provide for qualification of ACT facilitators. Submit annual instructor training requirements to the TYCOM for budgeting and quota management. The prescribed number and types of instructors are contained in the chart below.

T/M/S	Minimum Prescribed Number/Type Instructor
A-6	1 Pilot, 1 NFO
AH-1	1 Pilot
AV-8	1 Pilot
C-12	1 Pilot, 1 Enlisted Aircrew
C-130	1 Pilot, 1 Navigator, 1 Flight Engineer, 1 Load Master
C-9/C-20	1 Pilot, 1 Enlisted Aircrew, 1 Load Master
E-2/C-2	1 Pilot, 1 NFO, 1 Enlisted Aircrew
E-6	1 Pilot, 1 Flight Engineer, 1 ACO, 1 Reel Operator, 1 In-Flight Tech
EA-6B	1 Pilot, 1 NFO
S-3/ES-3	1 Pilot, 1 NFO, 1 Enlisted Aircrew
F-14	1 Pilot, 1 NFO
F/A-18A/C	1 Pilot
F/A-18D	1 Pilot, 1 NFO
H-1	1 Pilot, 1 Enlisted Aircrew
H-2	1 Pilot, 1 Enlisted Aircrew
H-3	1 Pilot, 1 Enlisted Aircrew
H-46 (all)	1 Pilot, 1 Enlisted Aircrew
H-53 (all)	1 Pilot, 1 Enlisted Aircrew
H-60 (all)	1 Pilot, 1 Enlisted Aircrew
NFO-B	1 Pilot, 1 NFO
NFO-J	1 Pilot, 1 NFO



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P-3	1 Pilot, 1 NFO, 1 Enlisted Aircrew
T-2	1 Pilot
T-34	1 Pilot
CT-39	1 Pilot, 1 Enlisted Aircrew
T-44	1 Pilot
T-45	1 Pilot
TA-4	1 Pilot
TH-57	1 Pilot, 1 Enlisted Aircrew

g. ACT Curriculum Model Manager

(1) Act as individual platform ACT curriculum model manager.

(2) Develop an ACT Program Management Implementation Plan for submission to the appropriate authority for approval not later than 90 days following initial ACT curriculum model manager's completion of the ACT Instructor trainer course offered by the ACT Instructional Model Manager. Navy ACT curriculum model managers will submit the plan to the TYCOM controlling authority and Marine Corps Curriculum Model Managers will submit the plan to MCCDC (Code C46). Information copies shall be forwarded to NAVAIR (PMA-205) and the ACT Instructional Model Manager. The Implementation Plan shall contain the following:

(a) Proposed structure, content, schedule and location for the training of FRS instructors in ACT skills.

(b) Proposed structure, content, schedule and location for training of ACT Facilitators for the applicable T/M/S.

(c) Proposed structure for overall program implementation for the applicable T/M/S. The proposed structure should include periodic requirements for academic training for FRS instructors and other aviation units and standardization assistance visit requirements to ensure that each unit maintains a high quality ACT program.

(3) Ensure that platform ACT curriculum is reviewed and updated as necessary, to reflect current missions, aircraft

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configuration and integration of ACT behavioral skills.

(4) Specific ACT Curriculum model managers and TYCOM controlling authorities, for each T/M/S aircraft, are listed below.

T/M/S	TYCOM Controlling Authority	Curriculum Model Manager
A-6	COMNAVAIRPAC	VA-128
AH-1	COMMARFORPAC	HMT-303
AV-8	COMMARFORLANT	VMAT-203
C-12	COMNAVAIRPAC	VRC-30
C-130	COMMARFORLANT	VMGRT-253
C-9/C-20	COMNAVAIRESFOR	COMFLELOGSUPPWING
E-2/C-2	COMNAVAILRLANT	VAW-120
E-6	COMNAVAIRPAC	STRATCOMWING ONE
EA-6B	COMNAVAIRPAC	VAQ-129/VMAQ-2
S-3/ES-3	COMNAVAIRPAC	VS-41
F-14	COMNAVAILRLANT	VF-101
F/A-18A/C	COMNAVAIRPAC	VFA-125/VMFAT-101
F/A-18D	COMMARFORPAC	VMFAT-101
H-1	COMMARFORPAC	HMT-303
H-2	COMNAVAIRESFOR	HELWINGRES
H-3	COMNAVAILRLANT	HS-1
H-46D	COMNAVAIRPAC	HC-3
H-46E	COMMARFORLANT	HMT-204
H-53	COMMARFORPAC	HMT-302/HMT-301
H-60B	COMNAVAIRPAC	HSL-41
H-60F	COMNAVAIRPAC	HS-10
MH-53	COMNAVAILRLANT	HELTACWINGLANT

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NFO-B	CNATRA	VT-10
NFO-J	CNATRA	VT-86
P-3	COMNAVAIRLANT	VP-30
T-2	CNATRA	TRAWING 1
T-34	CNATRA	TRAWING 5
T-39	COMNAVAIRESFOR	COMFLELOGSUPPWING
T-44	CNATRA	VT-31
T-45	CNATRA	TRAWING 2
TA-4	CNATRA	TRAWING 1
TH-57	CNATRA	TRAWING 5
AEATS	CNATRA	NAVAVSCOLSCOM
INSTRUCTOR	CNATRA	NAVAVSCOLSCOM

h. ACT Instructional Model Manager

(1) Provide ACT instructor training and certification for all ACT instructors.

(2) Act as reviewing authority for aircrew coordination matters and printed format quality control during development, revision and maintenance of ACT programs.

(3) Collect and maintain ACT program materials and provide reproducible copies of updated materials to users as needed.

(4) Coordinate, with Naval Safety Center, the dissemination of aviation mishap and hazard report data where aircrew coordination may have been a contributing factor in causing or averting a mishap or hazard.

(5) When requested, conduct standardization assistance visits for FRSS, Training Command Squadrons, MAGs and other units deemed necessary to meet fleet needs and ensure ACT program standardization.

(6) Maintain ACT program library of current curricula and programs.

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i. Aircraft NATOPS Model Manager

(1) Include evaluation of each unit's ACT program during the unit NATOPS evaluation to ensure compliance with reference (a) and this instruction.

(2) Provide ACT refresher training to small units, such as air stations, that may not have ACT facilitators. This training may be accomplished in conjunction with a unit NATOPS evaluation.

j. Unit NATOPS Evaluator


(1) Evaluate each crewmembers crew coordination techniques during crewmember annual NATOPS evaluations.

(2) Document successful evaluation of ACT behaviors on NATOPS evaluation form.

k. ACT Instructor. Conduct ACT Facilitator training for applicable aviation units. Training shall be conducted in accordance with this instruction and references (a) and (b) as applicable.

l. ACT Facilitator. Conduct ACT refresher training for all aircrew in their respective units. Training shall be conducted in accordance with this instruction and references (a) and (b) as applicable.

m. Naval Aviation Safety School. Coordinate with Naval Safety Center and the ACT Instructional Model Manager to provide instruction in identification of ACT behavioral skills which may have been contributory factors in causing or averting a mishap or hazard.

  
BRENT M. BENNITT  
By direction

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